

EUROPEAN FEDERATION OF CORROSION
WORKING PARTY "CATHODIC PROTECTION"
EFC WP 16

2nd meeting : Paris, Elf, March 16th, 1999

Minutes of Meeting

0. Introduction of the meeting.

M.Roche, Chairman of EFC WP16, welcomed the participants for the second meeting of this new Working Party, the inaugural meeting having taken place at Eurocorr'98 in Utrecht on September 29th, 1998. The minutes of this meeting have been issued for the attendees and excused members. They can be requested to M.Roche if needed.

1. Agenda and presentation of participants.

The attendance list including apologies is given in appendix 1. It is kindly requested to the members to **check their name, address, phone, fax and e-mail** and correct or complete when necessary. It was decided to send the minutes of this meeting to the complete list of past and new members and also to other possible interested CP specialists for their information and eventual future involvement.

As decided in Utrecht, the main topic of this meeting was to compare the Certification schemes for CP personnel and companies in the various countries.

2. Preparation of future meetings.

2.1 Eurocorr'99 in Aachen (30th August - 2nd September, 1999)

The possibility of having the first Technical Symposium on CP organised by WP16 was raised at the 1st meeting, depending on the eventual candidate authors. No paper was sent to M.Roche. It is assumed to be early for the WP16 to have a symposium this year.

The next (3rd) meeting of WP16 will be held during this EUROCORR.

M.Roche explained the organisation of EUROCORR : meetings of WP's are free, only entrance to the Conference (Symposia, Exhibit) is charged.

2.2 Eurocorr' 2000 in London (10 to 14th September, 2000).

M.Roche received from the organisation a mail in order to help to organise Eurocorr' 2000. Main themes of the conference should be :

- Past success - Future Challenges

- Cost of corrosion
- Corrosion Standards
- The Corrosion Science Symposium of Institute of Corrosion to be integrated in Eurocorr (mainly directed to young corrosion researchers and technologists)

M. Roche will give a positive answer to the request as follows :

- Yes for a technical session (technical symposium on CP).
- it is assumed to last half a day.
- the theme "Past success - Future Challenge" should be treated
- not sure for "cost of corrosion"
- yes for "Corrosion standards"
- not interested for corrosion Science Symposium
- WP16 meeting during half a day

3. Certification of CP personnel and companies

3.1 French Certification scheme

M.Roche presented the new French system operating in application of 2 French AFNOR standards issued in October 1996 :

- NF A05-690 defines CP personnel qualification; 3 levels are identified :
 - level 1 : execution personnel, working on the basis of written procedures, not able to sign measurement analysis reports or to carry out CP designs
 - level 2 : CP specialist, able to write conventional measurement procedures, to analyse and validate measurement reports, and to carry out simple design work.
 - level 3 : CP expert.
 This standard also defines 4 Application Sectors for CP :
 - Buried structures
 - Marine structures
 - Concrete structures
 - Internals of apparatuses.
- NF A05-691 details the process to organise Certification of this CP personnel : Certification Organism(s), Examination processes (theoretical "common trunk" and specific questions, practical questions) and Centres, ...

The Certification Organism, called CFPC (Conseil Français de la Protection Cathodique) was created by CEFACOR (Centre Français de l'Anticorrosion) in 1996, as an independent branch of it in order to be in accordance with EN 45013 requirements. From December 1998, it has been decided that AFNOR will endorse this scheme and mandate CFPC for the attribution of its competence mark "AFNOR Compétence" to the CP personnel certificates given by CFPC.

In the French scheme, training is left to other organisms willing to organise it; consequently, examination questions are published in order that candidates and training organisms know exactly the scientific and technical levels necessary to succeed. This choice has made the work very long as about 10 times the number of questions asked in examination were considered necessary to be published in the examination book for each themes.

The 1st version of the examination book, giving common trunk and buried structures sector questions for level 1, has been issued in March 1999; the 1st corresponding examination should be during the 3rd quarter of 1999. Questions for level 2 will be published in 1999 for a 1st examination possibly at the end of the year. The examination book (in French) can be ordered to CEFACOR for 1250 FF (common trunk and buried structures). The other questions will be published when available. The most advanced other application sector is marine structures (about ¾ questions written but not yet validated).

The Certification of CP companies will be studied in the near future (possibly based on ISO 9000 series together with CFPC/AFNOR Compétence for personnel active in the company).

3.2 Italian Certification scheme

B.Bazzoni presented the new Italian system, which is similar to the French one : 3 levels (operator, engineer, expert), 4 application sectors. However, there is a major difference for the level 2, who is not allowed to perform design studies (level 3 only can and is also in charge of training and qualification). This is due to the fact that in Italy a diplomed Engineer (corresponding to what is required for level 3) has a penal responsibility for the projects he signs. This is the same in UK.

UNI (Italian Normalisation Institute) published the draft standard U 68000760 in 1998 on “Qualification and Certification of Cathodic Protection personnel – General Principles”. The APCE (Association for the Protection from Electrolytic Corrosion), founded in 1981 and chaired by E.Stella, is exchanging information on buried metallic structures (pipeline operators and railways). This association is in charge of operating the Certification system; They have published a Code for the qualification and certification of CP personnel as well as a document giving the “Basic Required Knowledge” for the 4 Application Sectors. Training is mandatory (a certain number of hours is defined) and examination questions are not published. They are written by APCE. CICPND (Association for Non Destructive Testing) is used by APCE for the practical operations of certification .

The present situation is as follows : Candidates for level 3 (about 60) will be certified in April 1999 on a title basis (experience >20 years, education, number of publications and patents,...). About 50 certificates are anticipated, in the 4 application sectors but mainly for buried structures. They will be able to organise the certification for levels 2 and 1. The 1st training course will be organised by APCE in April 1999 for level 2, buried applications. Examination will be in June or September. Certification of about 50 applicants is foreseen for levels 1 and 2 in 1999.

- No certification for CP companies for the time being, except ISO 9000 for some companies.

A copy of overheads is given in appendix 2.

3.3 British Certification Scheme

B.Wyatt outlined the I Corr (Institute of Corrosion) system, which differs between Engineers and Technicians:

- Certification) by Institute of Corrosion for engineers and experts exists for many years (about 20):
 - 4 non-official routes allow the entry to “Professional Grade of Member” (with various requirements), but this does not concern especially Cathodic Protection but more generally corrosion; about 200 specialised in CP over 800 to 1000 members. This corresponds roughly to the NACE Corrosion Specialist Certification and there is a mutual agreement between both.
 - A single route leads to the entry for “Professional Grade of Fellow” (with specific requirements)
- The last 2 years, a technician grade of membership for the various fields of corrosion prevention including CP was established. 4 routes exist with various requirements. 2 levels exist for CP. Training courses (40 hrs of training for both levels) are mandatory. Examination is based on (40) theoretical and practical unpublished questions and (5) tests. There is no differentiation between the various application fields. As in Italy (not in France), a medical certificate is requested.

The present situation is :

- Level 1 courses : already 3 or 4 times given
- Level 2 courses is being established.

Companies or Universities will be authorised to operate courses.

Icorr REQ DOC “Requirements for the Certification of personnel engaged in painting and coating inspection, Cathodic Protection and Related Fields” 2nd Edition, April 1998 details the system. Some information is given in appendix 3.

Nothing exists in UK concerning Certification of CP Companies and it seems that it would not be accepted by Authorities (this could be interpreted as a restriction to free competition).

3.4 Certification in Poland

CP personnel and companies Certification does not exist, even if the Polish Centre of Testing and Certification was created in 1994 and functions according to EN standards. 10 companies and about 200/300 technicians and engineers are concerned with CP in Poland. The objective is to create certification of CP personnel in Poland too, but there is not yet requirements for Certification.

3.5 Certification in other countries

A.Pourbaix indicated that Belgium, and possibly other “smaller” countries, is interested by CP certification but in the purpose of unification of CP Certification in Europe. He will ask the gas Companies in Belgium to confirm if they have a special interest in Certification.

Something exists in Germany (unofficial accreditation of CP personnel and companies through CP Companies Association) and Netherlands (through KIWA) but more information is needed in next meetings from German and Dutch attendants.

I. Ragault explained her experience with the CP Certification in NACE . It was reminded that Certification of “CP Specialist” requires an examination based on unpublished questions but full documentation is allowed. It roughly corresponds to Icorr Professional Member (mutual agreement exists) or French level 2 . There is also a Certification for CP Technicians. It was understood that NACE is not presently willing to pass arrangements with Europe.

4. Relationship CEOCOR/EFC

CEOCOR (Comité Europe de l’Ouest sur la Corrosion des canalisations) is a federation of associations working on corrosion problems mainly in water and gas industries. It is divided in 3 sections :

- Section A (chairman Mr Stadler, Switherland) : external CP
- Section B : internal coatings
- Section C : external coatings

They organise a 3-day meeting each year (1 day per Section) and a more important conference every 3 years. The next one will be in Brussels in 2000. They write technical recommendations through Working Groups (casings, ac corrosion, isolating joints,...). Up to now, they have no activity on Certification.

When EFC WP 16 was created, attention was drawn on the importance not to duplicate the work with CEOCOR as well as CEN. A. Pourbaix considers that the best solution would be to merge EFC and CEOCOR but this is certainly not possible presently and close collaboration should be searched. It was anyway reminded that EFC deals with all the applications of CP and not only for buried pipelines. Moreover involvement in CEOCOR of some countries like UK is very minor.

It was decided that an official contact with MM. Leroy and Stalder will be taken as soon as possible by MM Roche and Pourbaix in order to have a meeting and discuss about topics and themes in each society and possible future co-operation in meetings, working groups or conferences. The minutes of this meeting will be sent to them for information (Mr Leroy was invited to this meeting).

5. EFC WP 16 targets

- 1) **Certification working group** to compare in more depth the various systems : Collation of more complete and detailed information on all available systems and preparation of a comparison document.
- 2) **Reactivation of a WG in CEN** dealing with Certification of CP personnel. The former CEN TN 262/WG5 on certification in corrosion never worked. The advantage of reactivating such a WG in CEN TC 219 (CP) to write an European standard on “Qualification and Certification of CP Personnel” is to stop further standardisation in the member countries in order to facilitate a future harmonised system in Europe. B.Wyatt (Convenor of CEN TC 219/WG2 on Concrete) and

I.Ragault (Convenor of CEN TC 219/WG1 on buried structures) will ask M. Brian Clary, the CEN TC 219 secretary, the opportunity to register a new Work Item in the Business Plan . This could be put in the agenda of the next CEN TC 219 meeting on October 7th 1999 in London. A.Pourbaix is a possible convenor, subject to Belgian gas companies support. The work carried out in the frame of EFC WP16 would be the basis for writing this standard.

3) Other topics :

- **Accurate potential measurements of buried structures.** The EFC WP16 half day seminar held at Eurocorr'2000 in London will particularly seek papers in this sector as a basis for information exchange and, possibly, a state of the art report to be written by a working group.
- **Long term testing of sacrificial anodes** : it has been mentioned the impossibility to reach an agreement on this topic in the CEN TC219/WG3.

6. Announcements

- ♦ 3-day seminar organised by CEFRACOR on Corrosion Control of Structures using CP and Coatings in Aix-en-Provence on June 1-3, 1999 (in French).
- ♦ Intensive seminars organised by Global Corrosion in UK on Corrosion in Oil and Gas Production (10-14 March, 1999) and CP (17-21 May, 1999).
- ♦ Proposal of Poland to organise a seminar "Cathodic Protection Theory and Practice" in Gdansk in 2001 or 2002, subject to EFC support. WP 16 suggested to held one of its meeting in Gdansk with one day of papers presentation.

M.Roche

3 Appendices